WHAT IS CLAIMED IS:

1. An image processing apparatus comprising:

input means for inputting multivalued image information;

conversion means for performing multivalued processing on the input multivalued image information and converting the information into data representing a number of print dots for each pixel;

counting means for counting the number of print dots for each region made up of a plurality of pixels; and

print dot layout determination means for determining a print dot layout in a region of interest in accordance with a count value of print dots in a peripheral region around the region of interest.

2. The apparatus according to claim 1, further comprising storage means for storing data representing the number of print dots from said conversion means.

3. The apparatus according to claim 1, wherein when an image is to be rotated, said counting means counts print dots for each of different regions in accordance with a rotational angle.

4. The apparatus according to claim 3, wherein said counting means comprises:

first counting means for counting image data in a region made up of a predetermined number of pixels successive in a main scanning direction; and

second counting means for counting image data in a region made up of a predetermined number of pixels successive in a subscanning direction,

and said counting means outputs:

when an image is not rotated, binary count values counted by said first counting means, directly,

when an image is rotated through 180° , binary count values counted by said first counting means, in an inverse order,

when an image is rotated through 90° , binary count values counted by said second counting means, directly, and

when an image is rotated through 270° , binary count values counted by said second counting means, in an inverse order.

5.   The apparatus according to claim 1, further comprising image printing means for printing an image on a printing medium in accordance with the print dot layout output from said print dot layout determination means.

6.   An image processing method comprising:

an input step of inputting multivalued image information;

a conversion step of performing multivalued processing on the input multivalued image information and converting the information into data representing the number of print dots for each pixel;

a counting step of counting the number of print dots

for each region made up of a plurality of pixels; and

a print dot layout determination step of determining
a print dot layout in a region of interest in accordance with
a count value of print dots in a peripheral region around
the region of interest.

7. The method according to claim 6, wherein the counting
step comprises a step of, when an image is to be rotated,
counting print dots for each of different regions in
accordance with a rotational angle.

8. The method according to claim 7, wherein the counting
step comprises:

a first counting step of counting image data in a region
made up of a predetermined number of pixels successive in
a main scanning direction; and

a second counting step of counting image data in a
region made up of a predetermined number of pixels successive
in a subscanning direction,

and in said counting step,

when an image is not rotated, binary count values
counted in the first counting step are directly output as
binary values,

when an image is rotated through 180°, binary count
values counted in the first counting step are output in an
inverse order,

when an image is rotated through 90°, binary count
values counted in the second counting step are directly

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output as binary values, and

when an image is rotated through 270° , binary count values counted in the second counting step are output in an inverse order.

9.   A computer-readable storage medium which stores a program having program codes of:

an input step of inputting multivalued image information;

a conversion step of performing multivalued processing on the input multivalued image information and converting the information into data representing the number of print dots for each pixel;

a counting step of counting the number of print dots for each region made up of a plurality of pixels; and

a print dot layout determination step of determining a print dot layout in a region of interest in accordance with· a count value of print dots in a peripheral region around the region of interest.